CLAIMS:

1. A composition that comprises, consists essentially of, or consists of:

a) a peptide of eight, nine, ten, or eleven contiguous amino acids of a protein of Figure 2;

b) a peptide of Tables V-XVIII;

c) a peptide of Tables XXII to XLV; or,

d) a peptide of Tables XLVI to XLIX.

2. A composition of claim 1, which elicits an immune response.

3. A protein of claim 2 that is at least 90, 91, 92, 93, 94, 95, 96, 97, 98, or 99% homologous or identical to an entire amino acid sequence shown in Figure 2.

4. A protein of claim 2, which is bound by an antibody that specifically binds to a protein of Figure 2.

5. A composition of claim 2 wherein the composition comprises a cytotoxic T cell (CTL) polypeptide epitope or an analog thereof, from the amino acid sequence of a protein of Figure 2.

6. A composition of claim 5 further limited by a *proviso* that the epitope is not an entire amino acid sequence of Figure 2.

7. A composition of claim 2 further limited by a *proviso* that the polypeptide is not an entire amino acid sequence of a protein of Figure 2.

8. A composition of claim 2 that comprises an antibody polypeptide epitope from an amino acid sequence of Figure 2.

9. A composition of claim 8 further limited by a *proviso* that the epitope is not an entire amino acid sequence of Figure 2.

10. A composition of claim 8 wherein the antibody epitope comprises a peptide region of at least 5 amino acids of Figure 2 in any whole number increment up to the end of said peptide, wherein the epitope comprises an amino acid position selected from:

a) an amino acid position having a value greater than 0.5 in the Hydrophilicity profile of Figure 5,

b) an amino acid position having a value less than 0.5 in the Hydropathicity profile of Figure 6;

c) an amino acid position having a value greater than 0.5 in the Percent Accessible Residues profile of Figure 7;

d) an amino acid position having a value greater than 0.5 in the Average Flexibility profile of Figure 8;

e) an amino acid position having a value greater than 0.5 in the Beta-turn profile of Figure 9;

f) a combination of at least two of a) through e);

g) a combination of at least three of a) through e);

h) a combination of at least four of a) through e); or

i) a combination of five of a) through e).

11. A polynucleotide that encodes a protein of claim 1.

12. A polynucleotide of claim 11 that comprises a nucleic acid molecule set forth in Figure 2.

13. A polynucleotide of claim 12 further limited by a *proviso* that the encoded protein is not an entire amino acid sequence of Figure 2.

14. A composition comprising a polynucleotide that is fully complementary to a polynucleotide of claim 11.

15. An 158P1D7 siRNA composition that comprises siRNA (double stranded RNA) that corresponds to the nucleic acid ORF sequence of the 158P1D7 protein or a subsequence thereof; wherein the subsequence is 19, 20, 21, 22, 23, 24, or 25 contiguous RNA nucleotides in length and contains sequences that are complementary and non-complementary to at least a portion of the mRNA coding sequence.

16. A polynucleotide of claim 13 that further comprises an additional nucleotide sequence that encodes an additional peptide of claim 1.

17. A method of generating a mammalian immune response directed to a protein of Figure 2, the method comprising:

exposing cells of the mammal's immune system to a portion of

a) a 158P1D7-related protein and/or

b) a nucleotide sequence that encodes said protein,

whereby an immune response is generated to said protein.

18. A method of generating an immune response of claim 17, said method comprising:

providing a 158P1D7-related protein that comprises at least one T cell or at least one B cell epitope; and,

contacting the epitope with a mammalian immune system T cell or B cell respectively, whereby the T cell or B cell is activated.

19. A method of claim 18 wherein the immune system cell is a B cell, whereby the activated B cell generates antibodies that specifically bind to the 158P1D7-related protein.

20. A method of claim 18 wherein the immune system cell is a T cell that is a cytotoxic T cell (CTL), whereby the activated CTL kills an autologous cell that expresses the 158P1D7-related protein.

21. A method of claim 18 wherein the immune system cell is a T cell that is a helper T cell (HTL), whereby the activated HTL secretes cytokines that facilitate the cytotoxic activity of a cytotoxic T cell (CTL) or the antibody-producing activity of a B cell.

22. A method for detecting the presence of an mRNA which encodes a protein of Figure 2 in a sample comprising:

subjecting the sample to reverse transcription using at least one 158P1D7 cDNA primer whereby cDNA is produced when mRNA is present in the sample;

amplifying the cDNA so produced using 158P1D7 polynucleotides as sense and antisense primers; and,

detecting the presence of the amplified 158P1D7 cDNA,

where the presence of amplified 158P1D7 cDNA indicates that an mRNA which encodes a protein of Figure 2 is present in the sample.

23. A method for detecting, in a sample, the presence of a 158P1D7-related protein or a 158P1D7-related polynucleotide, comprising steps of:

contacting the sample with a substance that specifically binds to the 158P1D7-related protein or to the 158P1D7-related polynucleotide, respectively, to form a complex; and,

determining the presence or amount of the complex in the sample.

24. A method of claim 23 for detecting the presence of a 158P1D7-related protein in a sample comprising steps of:

contacting the sample with an antibody or fragment thereof either of which specifically binds to the 158P1D7-related protein, and when so bound thereby forms a complex; and,

determining the presence or amount of the complex in the sample.

25. A method of claim 23 for monitoring one or more 158P1D7 gene products in a biological sample, the method comprising:

determining the status of one or more 158P1D7 gene products expressed by cells in a tissue sample from an individual;

comparing the status so determined to the status of one or more 158P1D7 gene products in a corresponding normal sample; and,

identifying the presence of aberrant expression status of 158P1D7 in the tissue sample relative to the normal sample.

26. The method of claim 25 further comprising a step of determining if there are one or more elevated gene products of a 158P1D7 mRNA or a 158P1D7 protein, whereby the presence of one or more elevated gene products in the test sample relative to the normal tissue sample indicates the presence or status of a cancer.

27. A method of claim 26 wherein the tissue is selected from a tissue set forth in Table I.

28. A composition that modulates the status of a cell that expresses a protein of Figure 2 comprising:

a) a substance that modulates the status of a cell that expresses a protein of Figure 2, or b) a molecule that is controlled by or produced by a protein of Figure 2.

29. A 158P1D7 siRNA composition according to claim 28 that comprises siRNA (double stranded RNA) that corresponds to the nucleic acid ORF sequence of the 158P1D7 protein or a subsequence thereof; wherein the subsequence is 19, 20, 21, 22, 23, 24, or 25 contiguous RNA nucleotides in length and contains sequences that are complementary and non-complementary to at least a portion of the mRNA coding sequence.

30. A composition of claim 28, further comprising a physiologically acceptable carrier.

31. A pharmaceutical composition that comprises the composition of claim 28 in a human unit dose form.

32. A composition of claim 28 wherein the substance comprises an antibody or fragment thereof that specifically binds to a protein of Figure 2.

33. An antibody or fragment thereof of claim 32, which is monoclonal.

34. An antibody of claim 32, which is a human antibody, a humanized antibody or a chimeric antibody.

35. A non-human transgenic animal that produces an antibody of claim 32.

36. A hybridoma that produces an antibody of claim 33.

37. A composition of claim 28 wherein the substance reduces or inhibits the viability, growth or reproduction status of a cell that expresses a protein of Figure 2.

38. A composition of claim 28 wherein the substance increases or enhances the viability, growth or reproduction status of a cell that expresses a protein of Figure 2.

39. A composition of claim 28 wherein the substance is selected from the group comprising:

a) an antibody or fragment thereof, either of which immunospecifically binds to a protein of Figure 2;

b) a polynucleotide that encodes an antibody or fragment thereof, either of which immunospecifically binds to a protein of Figure 2;

c) a ribozyme that cleaves a polynucleotide having a 158P1D7 coding sequence, or a nucleic acid molecule that encodes the ribozyme; and, a physiologically acceptable carrier; and

d) human T cells, wherein said T cells specifically recognize a 158P1D7 peptide subsequence in the context of a particular HLA molecule;

e) a protein of Figure 2, or a fragment of a protein of Figure 2;

f) a nucleotide encoding a protein of Figure 2, or a nucleotide encoding a fragment of a protein of Figure 2;

g) a peptide of eight, nine, ten, or eleven contiguous amino acids of a protein of Figure 2;

h) a peptide of Tables V-XVIII;

i) a peptide of Tables XXII to XLV;

j) a peptide of Tables XLVI to XLIX;

k) an antibody polypeptide epitope from an amino acid sequence of Figure 2;

l) a polynucleotide that encodes an antibody polypeptide epitope from an amino acid sequence of Figure 2; or

m) an 158P1D7 siRNA composition that comprises siRNA (double stranded RNA) that corresponds to the nucleic acid ORF sequence of the 158P1D7 protein or a subsequence thereof; wherein the subsequence is 19, 20, 21, 22, 23, 24, or 25 contiguous RNA nucleotides in length and contains sequences that are complementary and non-complementary to at least a portion of the mRNA coding sequence.

40. A method of inhibiting viability, growth or reproduction status of cancer cells that express a protein of Figure 2, the method comprising:

administering to the cells the composition of claim 28, thereby inhibiting the viability, growth or reproduction status of said cells.

41. The method of claim 40, wherein the composition comprises an antibody or fragment thereof, either of which specifically bind to a 158P1D7-related protein.

42. The method of claim 40, wherein the composition comprises (i) a 158P1D7-related protein or, (ii) a polynucleotide comprising a coding sequence for a 158P1D7-related protein or comprising a polynucleotide complementary to a coding sequence for a 158P1D7-related protein.

43. The method of claim 40, wherein the composition comprises a ribozyme that cleaves a polynucleotide that encodes a protein of Figure 2.

44. The method of claim 40, wherein the composition comprises human T cells to said cancer cells, wherein said T cells specifically recognize a peptide subsequence of a protein of Figure 2 while the subsequence is in the context of the particular HLA molecule.

45. The method of claim 40, wherein the composition comprises a vector that delivers a nucleotide that encodes a single chain monoclonal antibody, whereby the encoded single chain antibody is expressed intracellularly within cancer cells that express a protein of Figure 2.

46. A method of delivering an agent to a cell that expresses a protein of Figure 2, said method comprising:

providing the agent conjugated to an antibody or fragment thereof of claim 32; and,

exposing the cell to the antibody-agent or fragment-agent conjugate.

47. A method of inhibiting viability, growth or reproduction status of cancer cells that express a protein of Figure 2, the method comprising:

administering to the cells the composition of claim 28, thereby inhibiting the viability, growth or reproduction status of said cells.

48. A method of targeting information for preventing or treating a cancer of a tissue listed in Table I to a subject in need thereof, which comprises:

detecting the presence or absence of the expression of a polynucleotide associated with a cancer of a tissue listed in Table I in a sample from a subject, wherein the expression of the polynucleotide is selected from the group consisting of:

(a) a nucleotide sequence in Figure 2;

(b) a nucleotide sequence which encodes a polypeptide encoded by a nucleotide sequence in Figure 2;

(c) a nucleotide sequence which encodes a polypeptide that is 90% or more identical to the amino acid sequence encoded by a nucleotide sequence in Figure 2;

directing information for preventing or treating the cancer of a tissue listed in Table I to a subject in need thereof based upon the presence or absence of the expression of the polynucleotide in the sample.

49. The method of claim 48, wherein the information comprises a description of detection procedure or treatment for a cancer of a tissue listed in Table I.

50. A method for identifying a candidate molecule that modulates cell proliferation, which comprises:

(a) introducing a test molecule to a system which comprises a nucleic acid comprising a nucleotide sequence selected from the group consisting of:

(i) the nucleotide sequence of SEQ ID NO:1;

(ii) a nucleotide sequence which encodes a polypeptide consisting of the amino acid sequence set forth in Figure 3;

(iii) a nucleotide sequence which encodes a polypeptide that is 90% or more identical to the amino acid sequence set forth in Figure 3; and

(iv) a fragment of a nucleotide sequence of (i), (ii), or (iii); or introducing a test molecule to a system which comprises a protein encoded by a nucleotide sequence of (i), (ii), (iii), or (iv); and

(b) determining the presence or absence of an interaction between the test molecule and the nucleotide sequence or protein,

whereby the presence of an interaction between the test molecule and the nucleotide sequence or protein identifies the test molecule as a candidate molecule that modulates cell proliferation.

51. The method of claim 50, wherein the system is an animal.

52. The method of claim 50, wherein the system is a cell.

53. The method of claim 50, wherein the test molecule comprises an antibody or antibody fragment that specifically binds the protein encoded by the nucleotide sequence of (i), (ii), (iii), or (iv).

54. A method for treating a cancer of a tissue listed in Table I in a subject, which comprises administering a candidate molecule identified by the method of claim 50 to a subject in need thereof, whereby the candidate molecule treats a cancer of a tissue listed in Table I in the subject.

55. A method for identifying a candidate therapeutic for treating a cancer of a tissue listed in Table I, which comprises:

(a) introducing a test molecule to a system which comprises a nucleic acid comprising a nucleotide sequence selected from the group consisting of:

(i) the nucleotide sequence of SEQ ID NO:1;

(ii) a nucleotide sequence which encodes a polypeptide consisting of the amino acid sequence set forth in Figure 3;

(iii) a nucleotide sequence which encodes a polypeptide that is 90% or more identical to the amino acid sequence set forth in Figure 3; and

(iv) a fragment of a nucleotide sequence of (i), (ii), or (iii); or introducing a test molecule to a system which comprises a protein encoded by a nucleotide sequence of (i), (ii), (iii), or (iv); and

(b) determining the presence or absence of an interaction between the test molecule and the nucleotide sequence or protein,

whereby the presence of an interaction between the test molecule and the nucleotide sequence or protein identifies the test molecule as a candidate therapeutic for treating a cancer of a tissue listed in Table I.

56. The method of claim 55, wherein the system is an animal.

57. The method of claim 55, wherein the system is a cell.

58. The method of claim 55, wherein the test molecule comprises an antibody or antibody fragment that specifically binds the protein encoded by the nucleotide sequence of (i), (ii), (iii), or (iv).